PageWriter Trim Cardiograph XML Schema

Description

This document contains a description of the PageWriter Trim Cardiograph XML (Extensible Markup Language) Schema, and includes links to the associated .xsd files, and an .svg example file.

The ECG data content are subdivided into nine major categories including:

- `documentinfo`
- `userdefines`
- `orderinfo`
- `reportinfo`
- `dataacquisition`
- `patient`
- `measurements`
- `interpretations`
- `waveforms`

The following sections contain a description of each category.

documentinfo

The `documentinfo` tag includes the `documentname` which is the filename of the document. The `documenttype` tag includes a reference to the document schema. `documentversion` includes the version number for the schema.

userdefines

All user defined ECG information (configured to appear on the Patient ID screens) are included in the `userdefines` tags. The number of user defined data fields is limited to eight entries. The label tag includes the name of the data being described (for example, `bednumber`) and the value linked to the label is included in the `value` tag.

orderinfo

This tag includes all order generated information and is optional. All of the `orderinfo` subelements have no minimum length restriction. An empty element is a valid entry for any subelement.

reportinfo

The `reportinfo` tag includes the settings used when the ECG report was originally created. This tag includes a description of the printed ECG report format settings, gain and speed settings, filter settings, rhythm strip settings, and whether full Extended Measurements were printed with the report.

dataacquisition

This tag includes information about the settings on the individual cardiograph that acquired the ECG. This tag includes three subcategories: `machine`, `acquirer`, and `signalcharacteristics`.

- machine

This tag includes the name of the cardiograph or other medical equipment that was used to acquire the ECG.

- acquirer

This tag includes the name and identification information for the operator that obtained the ECG, the room number the ECG was acquired in, and the name and location of the institution where the ECG was obtained

- signalcharacteristics

This tag includes information about the raw ECG data including: sampling rate, resolution, bandwidth, and the lead configuration (Standard, Cabrera, EASI, Frank leads, SAECG).

patient

The `patient` tag includes all Patient ID information associated with the ECG and is broken down into two subcategories: `generalpatientdata` and `patientmedicaldata`.

- generalpatientdata

This tag includes general Patient ID information including Patient ID number, patient name, age, and gender.

- patientmedicaldata

This tag includes medical data entered on the Patient ID screen including blood pressure, diagnosis, symptoms, medications, and medical history.

measurements

This tag includes all information generated by the Philips 12-Lead Algorithm and is broken down into three subcategories: `globalmeasurements`, `groupmeasurements`, and `leadmeasurements`. All measurements are represented with a unit attribute. The default units are: *msec* for time-related data, *uV* for amplitude data, *Hz* for frequency data, and *A* (Ashman) for area data.

- globalmeasurements

This tag describes a sampling of measurement values for selected beats within the ECG. Some of the values will agree with the global measurements that are printed at the upper left corner of the ECG report. It is recommended to look for the true global values of the ECG in the `interpretations` section described below.

- groupmeasurements

This tag includes all morphology group measurements for the ECG, and includes group beats and any abnormal beats. These measurements represent the raw internal data that the Philips 12-Lead Algorithm used to generate the final measurements, and the interpretive, reason, and severity statements that appear on the printed report.

- leadmeasurements

This tag includes the measurements for each lead. The measurements for each lead are identified by the name of the lead (I, II, III, V1, V2, C1, C2). An empty or NULL lead measurement signifies an invalid or incomplete measurement for that lead.

interpretations

This tag includes all of the interpretive, reason, and severity statements generated by the Philips 12-Lead Algorithm, and includes the version number and release date of the algorithm that was used to generate the interpretive statements. The `statementcomponents` tag is used by systems that require full editing of all interpretive statements (TraceMaster or TraceMasterVue ECG Management System). This tag also includes an `interpretationsmeasurements` tag to encompass the true global measurements for the ECG. Because it is possible to modify these measurements, an `edited` tag is included to indicate whether the values have been manually changed. When `edited = false` appears, the value has been automatically generated by the medical device and has not been manually edited.

waveforms

This tag includes all of the waveform data generated from the ECG and describes how the waveform data is stored. The `parsedwaveforms` tag contains a `dataencoding` attribute to denote that the data is encoded using base64 and is stored inside the document. This format facilitates data transmission. The `repbeats` tag includes all of the representative beats with their associated measurements. This section appears as:

```
<repbeat leadname="V6" duration="1200" ponset="176" pend="236"
qonset="254" qend="300" tonset="364" tend="466">.
```

The units for these values are in 2 msec sample counts. From these values, the following can be calculated:

- P duration (msec) from (pend-ponset) * 2

- PR interval (msec) from (qonset-ponset) *2

- QRS duration (msec) from (qend-qonset) *2

- QT interval (msec) from (tend-qonset) *2

Links

Click here to view the PageWriter Trim Cardiograph Schema (.xsd file)

Click here to view a sample PageWriter Trim Cardiograph XML file

Click here to view an example of a rendered ECG report in .svg format